

NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

CF 10932
R-10094

December 29, 1995

The Wiser Oil Company
P.O. Box 3232
Carlsbad, New Mexico 88221-3232

Attn: Mr. Perry L. Hughes

**RE: Injection Pressure Increase Caprock Maljamar Unit
Waterflood Project Lea County, New Mexico**

Dear Mr. Hughes:

Reference is made to your request dated November 10, 1994 to increase the surface injection pressure on 42 wells. This request is based on step rate tests conducted on 13 of these wells between September 27 and October 12, 1995. The results of the tests have been reviewed by my staff and we feel an increase in injection pressure on these wells is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following 13 wells:

Well and Location	Maximum Injection Surface Pressure
Caprock Maljamar Unit Well No.4 Unit C, 17-T17S-R33E	1910 PSIG
Caprock Maljamar Unit Well No.5 Unit B, 17-T17S-R33E	2200 PSIG
Caprock Maljamar Unit Well No.9 Unit E, 17-T17S-R33E	2550 PSIG
Caprock Maljamar Unit Well No.12 Unit H, 17-T17S-R33E	2480 PSIG
Caprock Maljamar Unit Well No.17 Unit J, 18-T17S-R33E	2760 PSIG
Caprock Maljamar Unit Well No.26 Unit N, 18-T17S-R33E	2755 PSIG

Well and Location	Maximum Injection Surface Pressure
Caprock Maljamar Unit Well No.37 Unit D, 19-T17S-R33E	1910 PSIG
Caprock Maljamar Unit Well No.40 Unit A, 19-T17S-R33E	2200 PSIG
Caprock Maljamar Unit Well No.42 Unit C, 20-T17S-R33E	2550 PSIG
Caprock Maljamar Unit Well No.51 Unit F, 19-T17S-R33E	2480 PSIG
Caprock Maljamar Unit Well No.57 Unit H, 20-T17S-R33E	2760 PSIG
Caprock Maljamar Unit Well No.59 Unit F, 21-T17S-R33E	2755 PSIG
Caprock Maljamar Unit Well No.70 Unit J, 20-T17S-R33E	2755 PSIG
All wells located in Lea County, New Mexico.	

Additionally, based on representative data, you are authorized to increase the surface injection pressure on the following 29 wells:

Well and Location	Maximum Injection Surface Pressure
Caprock Maljamar Unit Well No.1 Unit B, 18-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.2 Unit A, 18-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.3 Unit D, 17-T17S-R33E	2256 PSIG

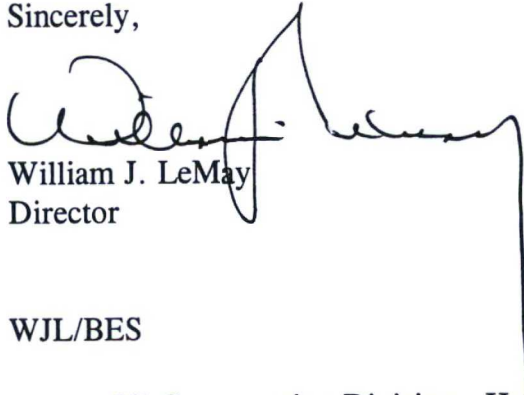
Well and Location	Maximum Injection Surface Pressure
Caprock Maljamar Unit Well No.6 Unit A, 17-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.7 Unit G, 18-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.8 Unit H, 18-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.10 Unit F, 17-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.11 Unit G, 17-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.13 Unit J, 13-T17S-R32E	2256 PSIG
Caprock Maljamar Unit Well No.14 Unit I, 13-T17S-R32E	2256 PSIG
Caprock Maljamar Unit Well No.15 Unit L, 18-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.16 Unit K, 18-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.18 Unit I, 18-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.22 Unit I, 17-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.23 Unit O, 13-T17S-R32E	2256 PSIG
Caprock Maljamar Unit Well No.24 Unit P, 13-T17S-R32E	2256 PSIG
Caprock Maljamar Unit Well No.25 Unit M, 18-T17S-R33E	2256 PSIG

Well and Location	Maximum Injection Surface Pressure
Caprock Maljamar Unit Well No.27 Unit O, 18-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.28 Unit P, 18-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.31 Unit O, 17-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.38 Unit C, 19-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.44 Unit A, 20-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.50 Unit E, 19-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.52 Unit G, 19-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.54 Unit E, 20-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.56 Unit G, 20-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.69 Unit K, 20-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.71 Unit I, 20-T17S-R33E	2256 PSIG
Caprock Maljamar Unit Well No.81 Unit M, 20-T17S-R33E	2256 PSIG
All wells located in Lea County, New Mexico.	

Injection Pressure Increase
The Wiser Oil Company
December 29, 1995
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The Division Director may rescind this injection pressure increase if it becomes apparent that the injected water is not being confined to the injection zone or is endangering any fresh water aquifers.

Sincerely,

A handwritten signature in black ink, appearing to read 'William J. LeMay', with a long horizontal stroke extending to the right and a vertical line dropping down from the end.

William J. LeMay
Director

WJL/BES

cc: Oil Conservation Division - Hobbs
File: 2nd Qtr 96 PSI-X; Case File No.10932

SHAHARA OIL CORPORATION

PSI-X N/R

November 2, 1995

Mr. David Catanach
Oil Conservation Division
P.O. Box 6429
Santa Fe, NM 87505-6429



Re: The Wiser Oil Company
Injection Pressure Increase
Caprock Maljamar Unit Waterflood Project
Lea County, New Mexico

Dear Mr. Catanach:

Please refer to your letters of September 15 and October 24, 1995 and my letters of August 25 and September 27, 1995. The Wiser Oil Company has conducted step rate tests on nine of the 14 wells requested in your September 15 letter. We were unable to get the tool through the tubing in CMU #1; CMU #13 and CMU #15 are plugged and abandoned; and CMU #6 and CMU #69 were producing at the time the tests were conducted (CMU #6 has subsequently been converted - we could attempt to run a test if necessary). Our letter of September 27 suggested five alternative wells and we have successfully run tests on four of those (could not get tool through the tubing on CMU #3). The results of the 13 completed tests are as follows:

Caprock Maljamar Unit Fracture Pressure - PSIG

Well Name	BHP	Surface	Surface - 50 psig
CMU #4	3540	1960	1910
CMU #5	4190	2400	2350
CMU #9	3700	2220	2170
CMU #12	4440	2670	2620
CMU #17	3750	2350	2300
CMU #26	3450	2100	2050
CMU #37	3525	2010	1960
CMU #40	4000	2210	2160
CMU #42	4130	2400	2350
CMU #51	3750	2125	2075
CMU #57	4540	2700	2650
CMU #59	4000	2290	2240
CMU #70	4200	2550	2500
Average	3940	2306	2256

Copies of all graphical data is included. The results of these tests compare favorably with those obtained in previous surveys. The Wiser Oil Company and Holmes Wireline Service maintain complete records of all data gathered on the tests and are glad to make these available.

The Wiser Oil Company requests maximum allowable injection pressure on the 13 tested wells be the surface pressure minus 50 psig as shown above and the average surface injection pressure minus 50 psi of 2256 psi on the 13 wells be granted on the remaining 29 wells as listed in our August 25 letter. Following is a complete list of proposed pressures.

Requested Maximum Allowable Injection Pressures

CMU Well No.	Location Footage	Unit	Section	Township	Range	Max Inj Pressure
<u>1</u>	660' FNL & 1980' FEL	B	18	17S	33E	2256
<u>2</u>	660' FNL & 660' FEL	A	18	17S	33E	2256
<u>3</u>	660' FNL & 660' FWL	D	17	17S	33E	2256
4	660' FNL & 1980' FWL	C	17	17S	33E	1910
5	660' FNL & 1980' FEL	B	17	17S	33E	2350
<u>6</u>	660' FNL & 660' FEL	A	17	17S	33E	2256
<u>7</u>	1980' FSL & 2080' FEL	G	18	17S	33E	2256
<u>8</u>	1980' FNL & 660' FEL	H	18	17S	33E	2256
9	1980' FNL & 660' FWL	E	17	17S	33E	2170
<u>10</u>	1980' FNL & 1980' FWL	F	17	17S	33E	2256
<u>11</u>	1980' FNL & 1980' FEL	G	17	17S	33E	2256
12	1980' FNL & 660' FEL	H	17	17S	33E	2620
<u>13</u>	1980' FSL & 1980' FEL	I	13	17S	32E	2256
<u>14</u>	1980' FSL & 660' FEL	I	13	17S	32E	2256
<u>15</u>	1980' FSL & 693.65' FWL	L	18	17S	33E	2256
<u>16</u>	1980' FSL & 2047' FWL	K	18	17S	33E	2256
17	1980' FSL & 1980' FEL	J	18	17S	33E	2300
<u>18</u>	1980' FSL & 660' FWL	I	18	17S	33E	2256
<u>22</u>	1980' FSL & 660' FEL	I	17	17S	33E	2256
<u>23</u>	660' FSL & 1980' FEL	O	13	17S	32E	2256
<u>24</u>	660' FSL & 660' FEL	P	13	17S	32E	2256
<u>25</u>	660' FSL & 693.55' FWL	M	18	17S	33E	2256
26	660' FSL & 2047' FWL	N	18	17S	33E	2050
<u>27</u>	760' FSL & 1980' FEL	O	18	17S	33E	2256
<u>28</u>	660' FSL & 660' FEL	P	18	17S	33E	2256

Mr. David Catanach

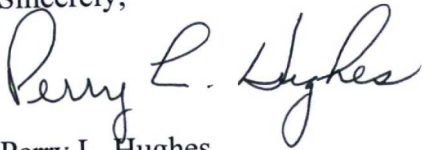
November 2, 1995

Page 3

31	660' FSL & 1980' FEL	O	17	17S	33E	2256
37	660' FNL & 694' FWL	D	19	17S	33E	1960
38	660' FNL & 2047' FWL	C	19	17S	33E	2256
40	660' FNL & 660' FEL	A	19	17S	33E	2160
42	660' FNL & 1980' FWL	C	20	17S	33E	2350
44	660' FNL & 660' FEL	A	20	17S	33E	2256
50	1980' FNL & 694' FWL	E	19	17S	33E	2256
51	1980' FNL & 2048' FWL	F	19	17S	33E	2075
52	1980' FNL & 1980' FEL	G	19	17S	33E	2256
54	1980' FNL & 660' FWL	E	20	17S	33E	2256
56	1880' FNL & 1980' FEL	G	20	17S	33E	2256
57	1980' FNL & 660' FEL	H	20	17S	33E	2650
59	1980' FNL & 1980' FWL	F	21	17S	33E	2240
69	1650' FSL & 2310' FWL	K	20	17S	33E	2256
70	1980' FSL & 1980' FEL	J	20	17S	33E	2500
71	1980' FSL & 660' FEL	I	20	17S	33E	2256
81	330' FSL & 990' FWL	M	20	17S	33E	2256

Thank you for your prompt attention to our request. We need these increased pressures in order to dispose of the produced water being generated by our ongoing redevelopment program.

Sincerely,

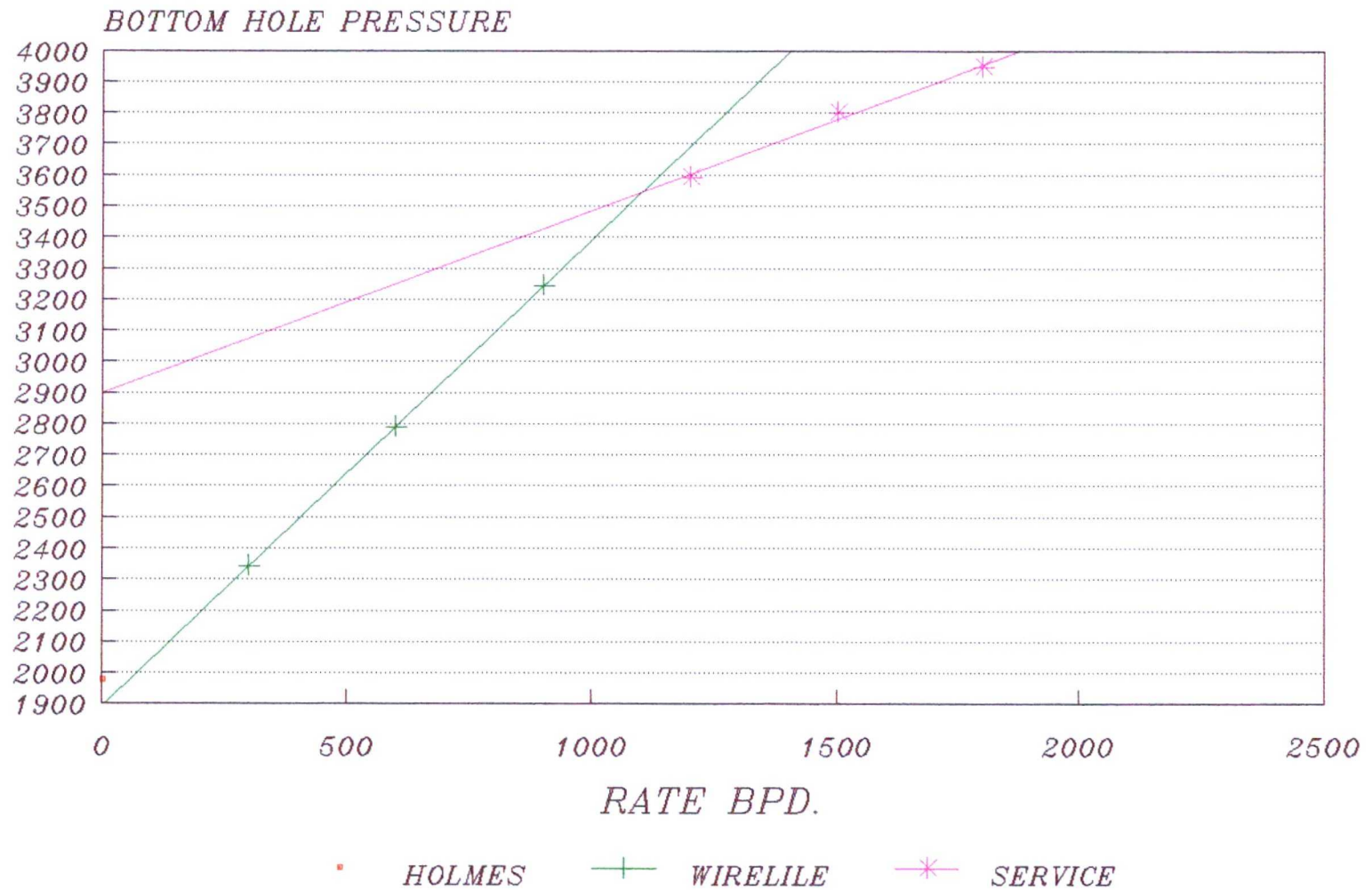


Perry L. Hughes
Agent for
The Wiser Oil Company

Attachments

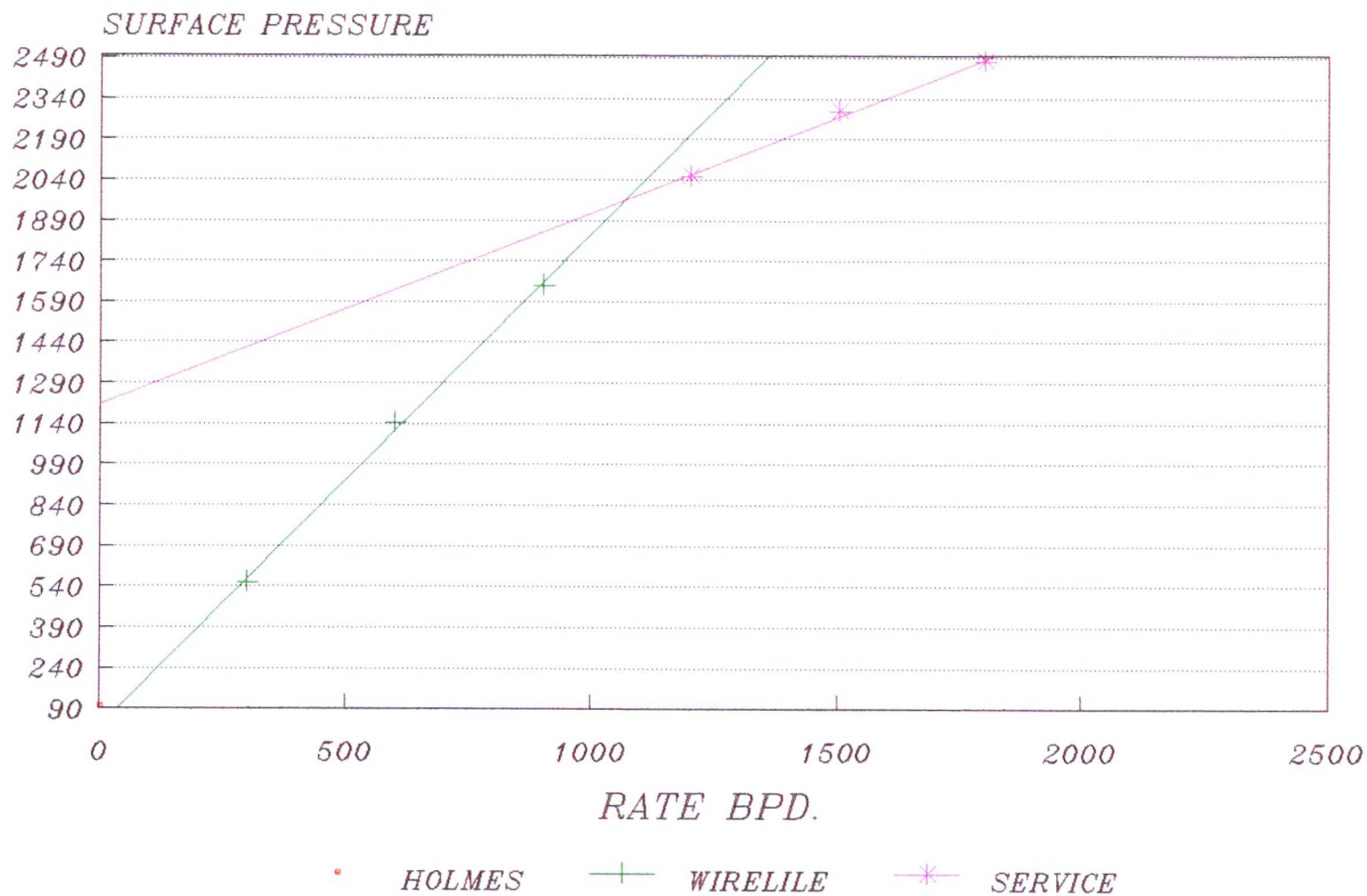
cc: Mr. Jerry Sexton
Hobbs OCD

WISER OIL : CMU #4



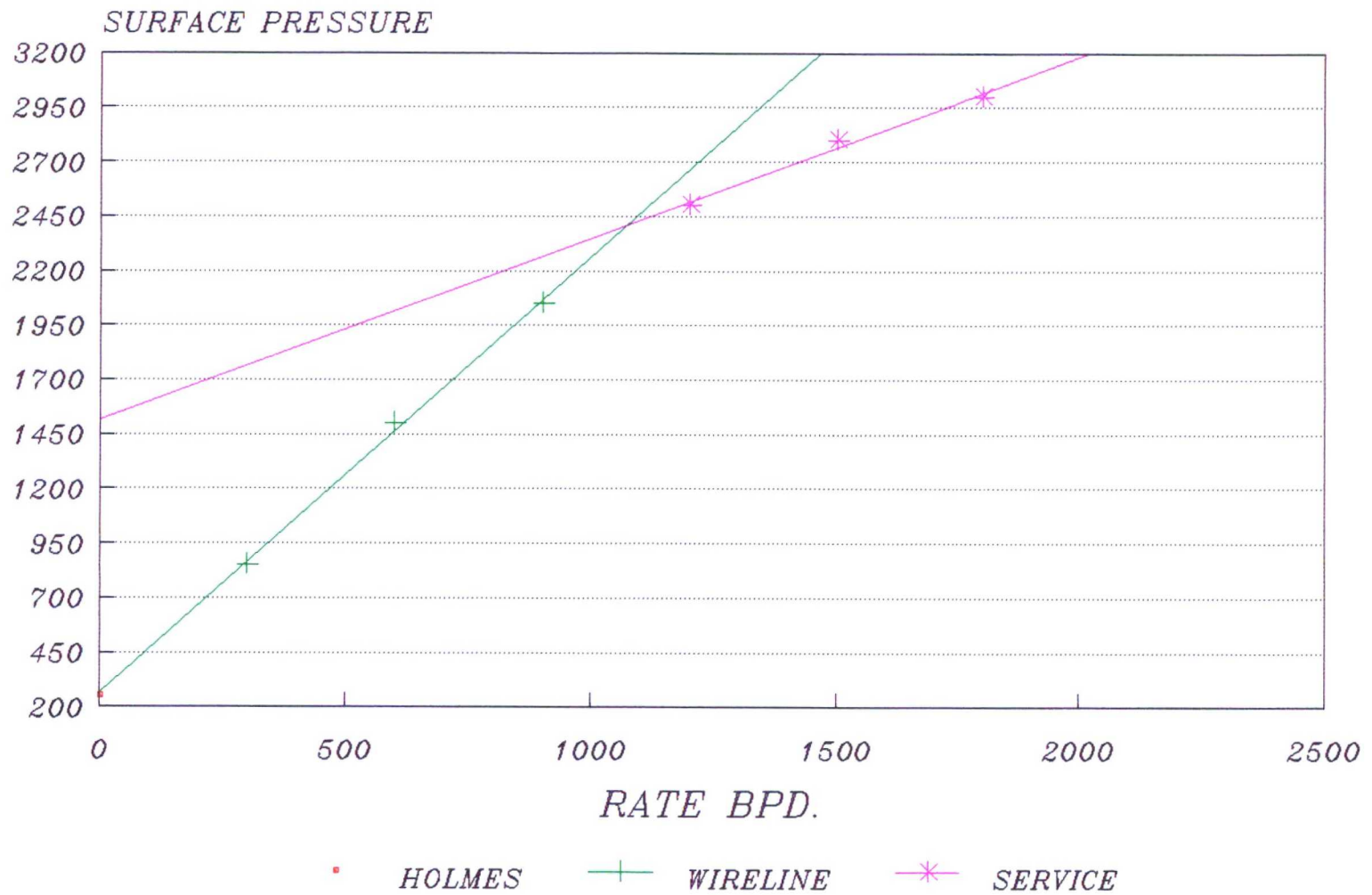
FRACTURE AT 3540 PSI 9-28-95

WISER OIL : CMU #4



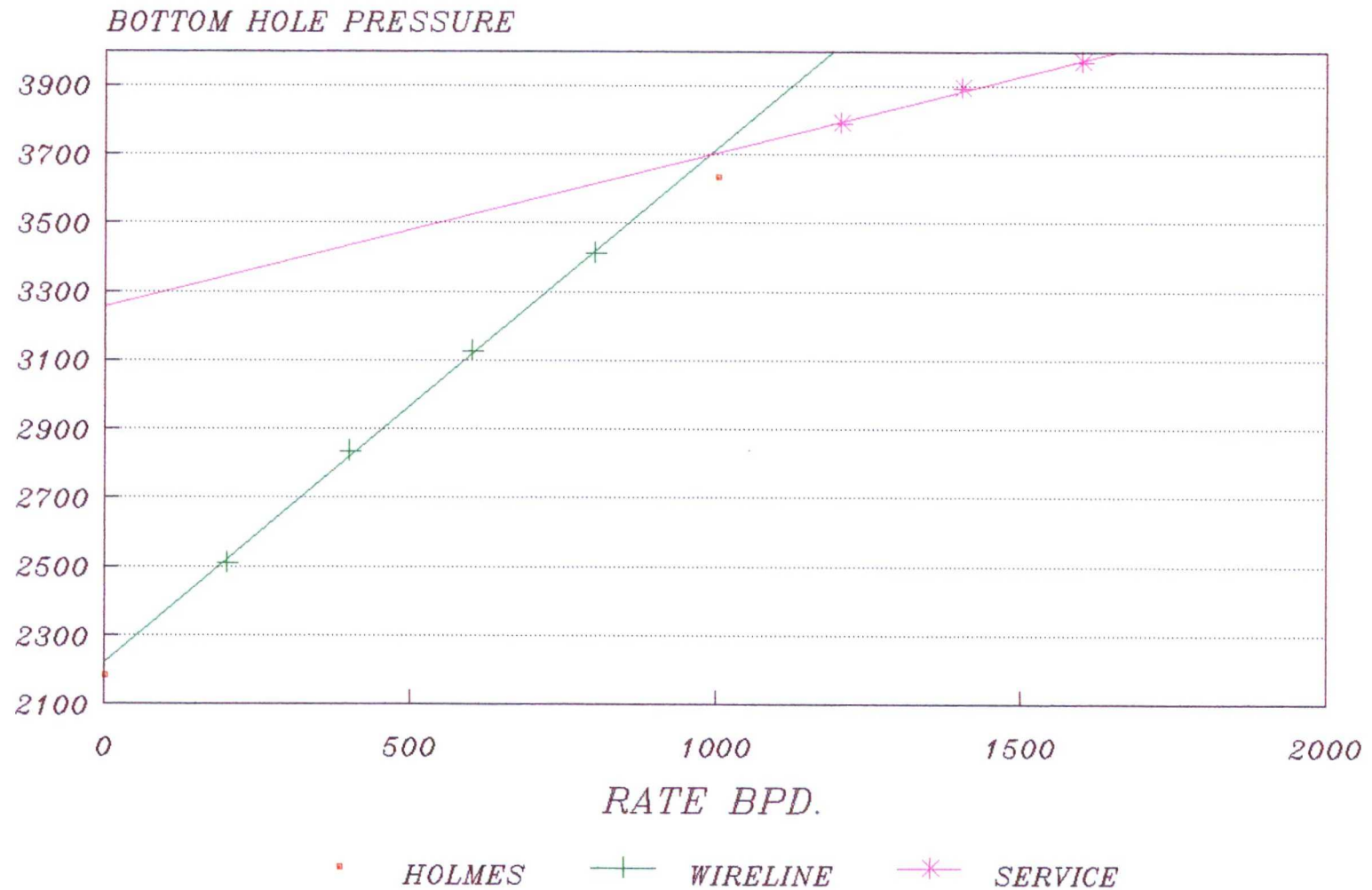
FRACTURE AT 1960 PSI 9-28-95

WISER OIL : CMU #5



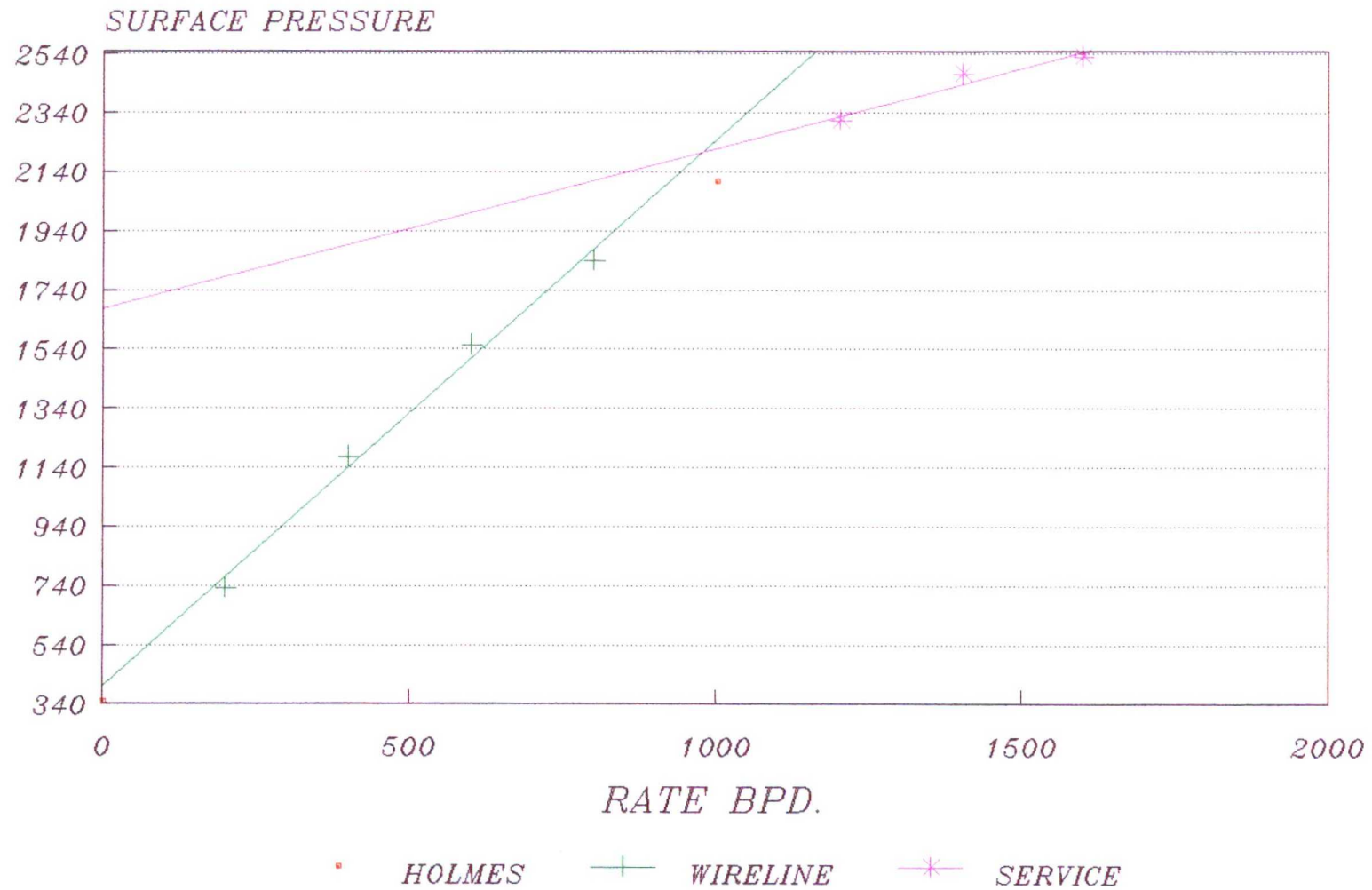
FRACTURE AT APPROX. 2400 PSI 10-12-95

WISER OIL : CMU #9



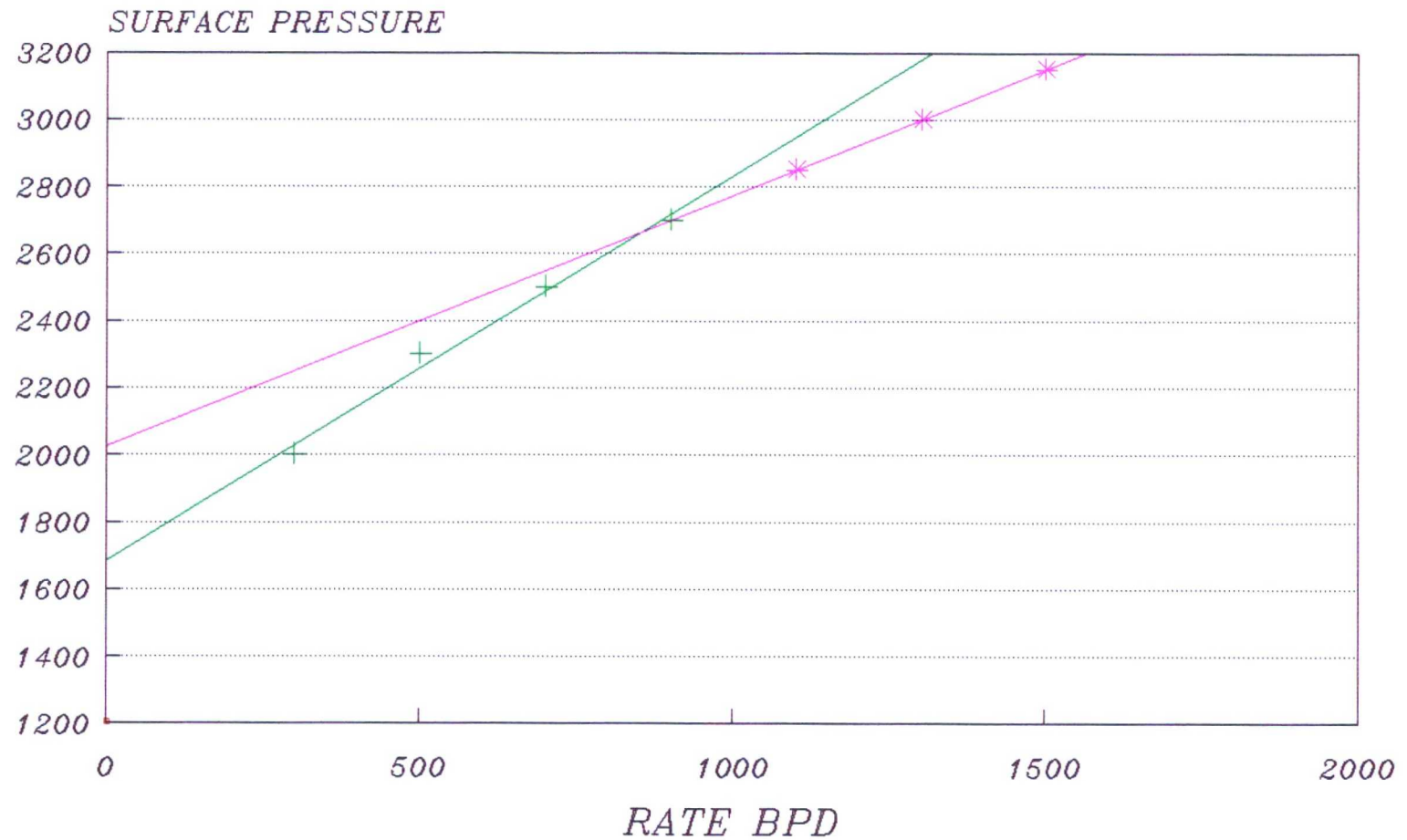
FRACTURE @ 3700 PSI 9-28-95

WISER OIL : CMU #9



FRACTURE @ 2220 PSI 9-28-95

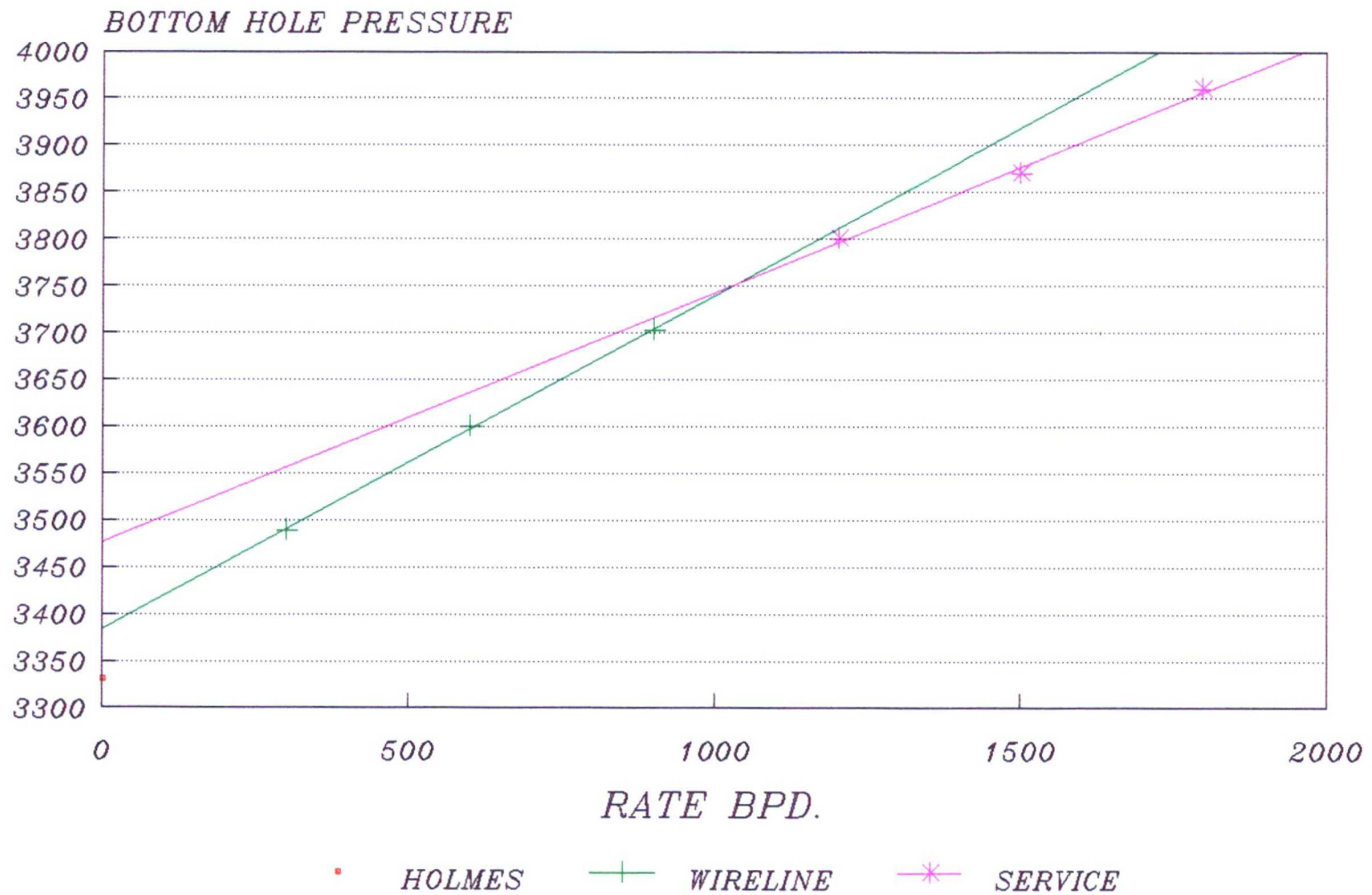
WISER OIL : CMU #12



■ HOLMES + WIRELINE * SERVICE

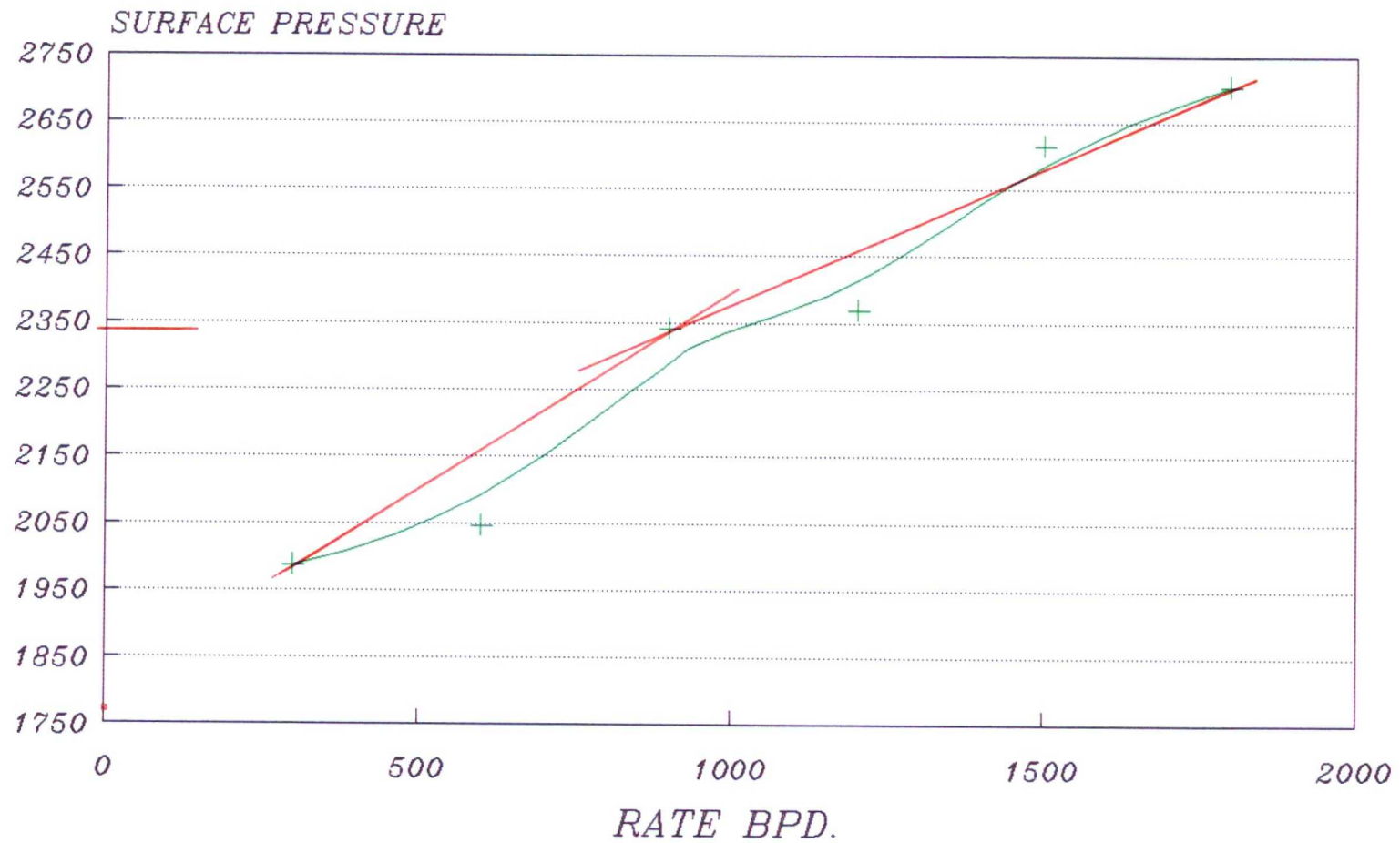
FRACTURE AT APPROX. 2670 PSI 10-4-95

WISER OIL : CMU #17



FRACTURE AT APPROX. 3750 BHP 10-2-95

WISER OIL : CMU #17

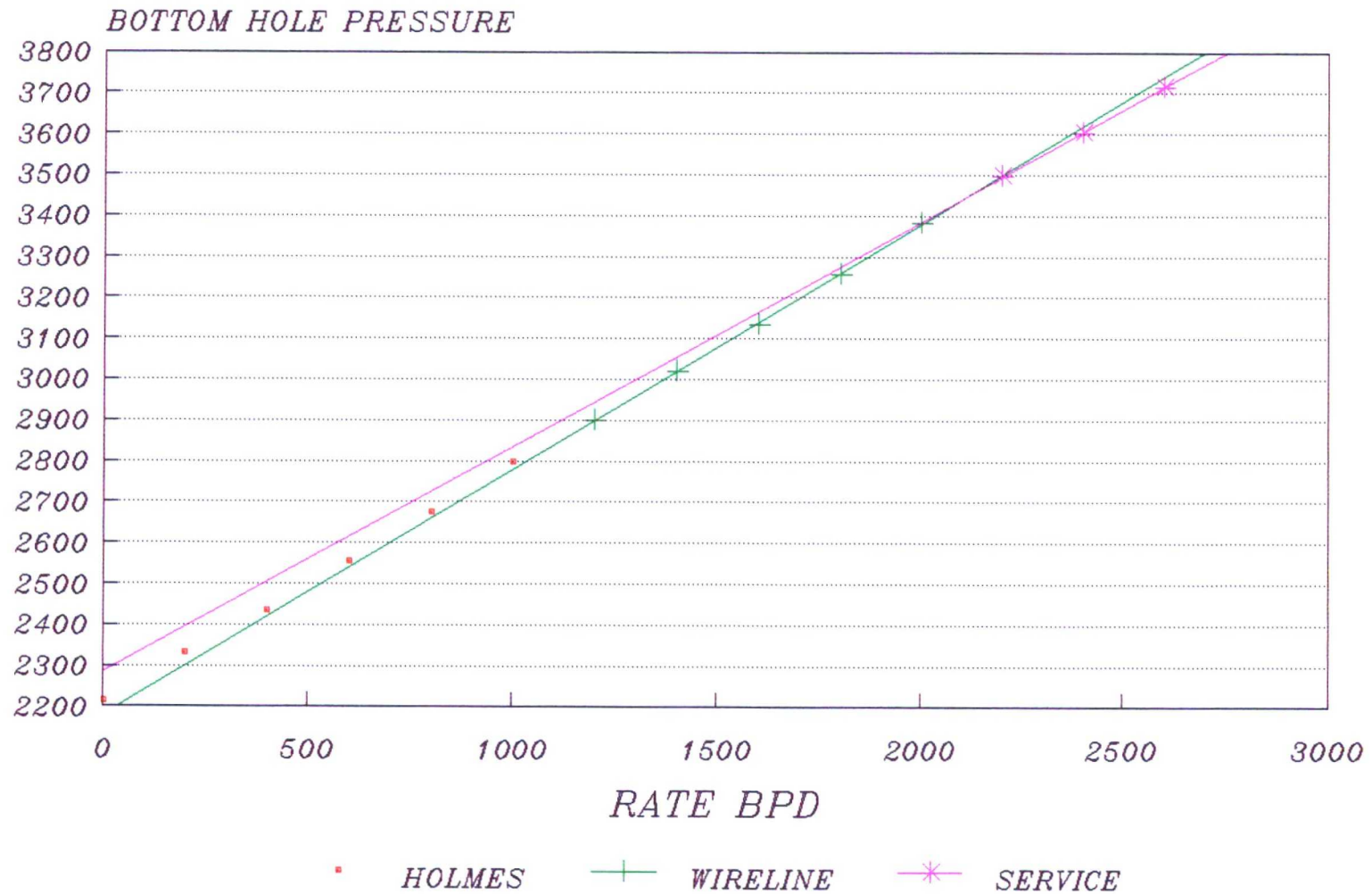


■ HOLMES + WIRELINE

NO FRACTURE INDICATED

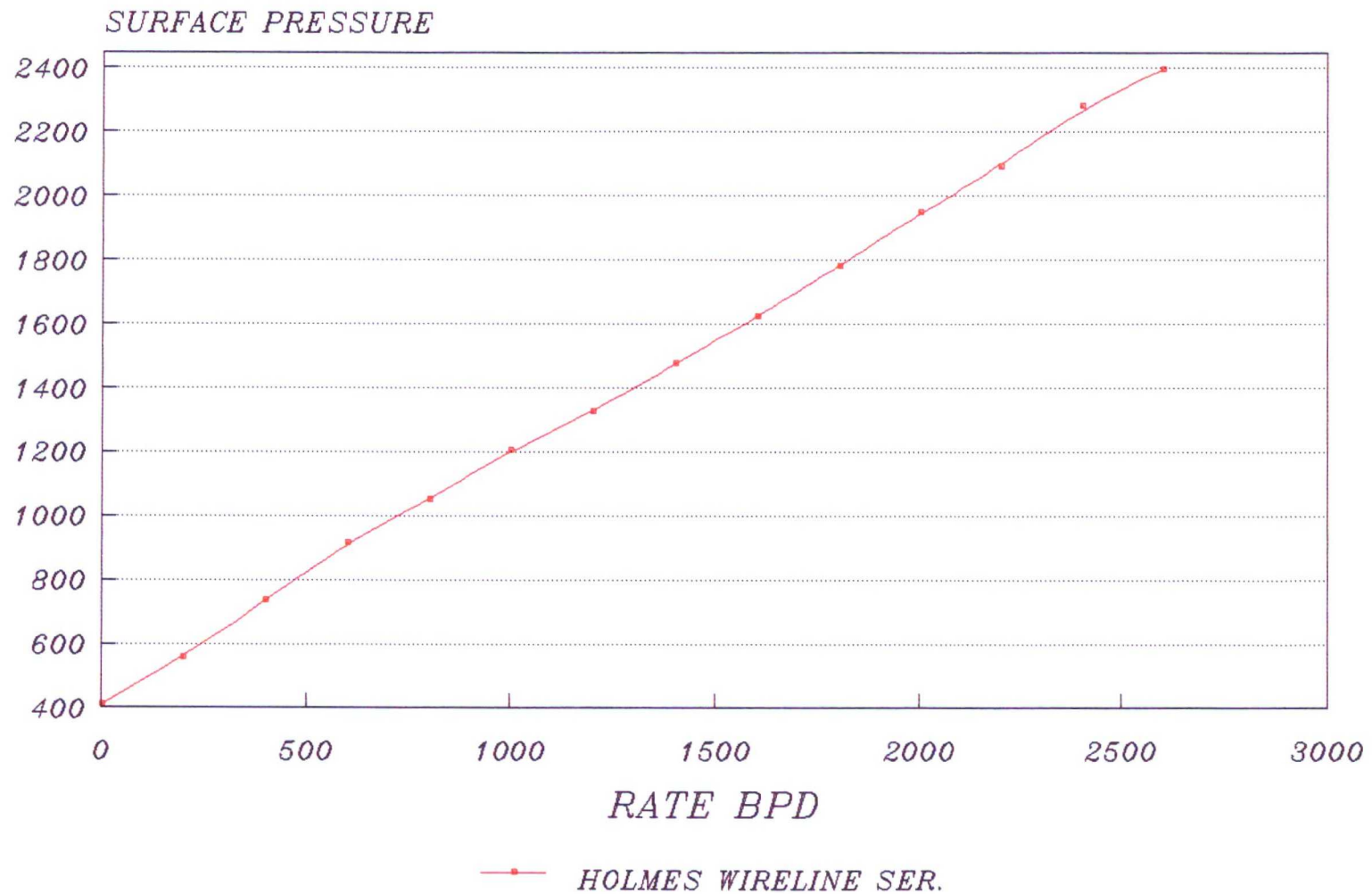
10-2-95

WISER OIL : CMU #26



FRACTURE AT 3450 9-27-95

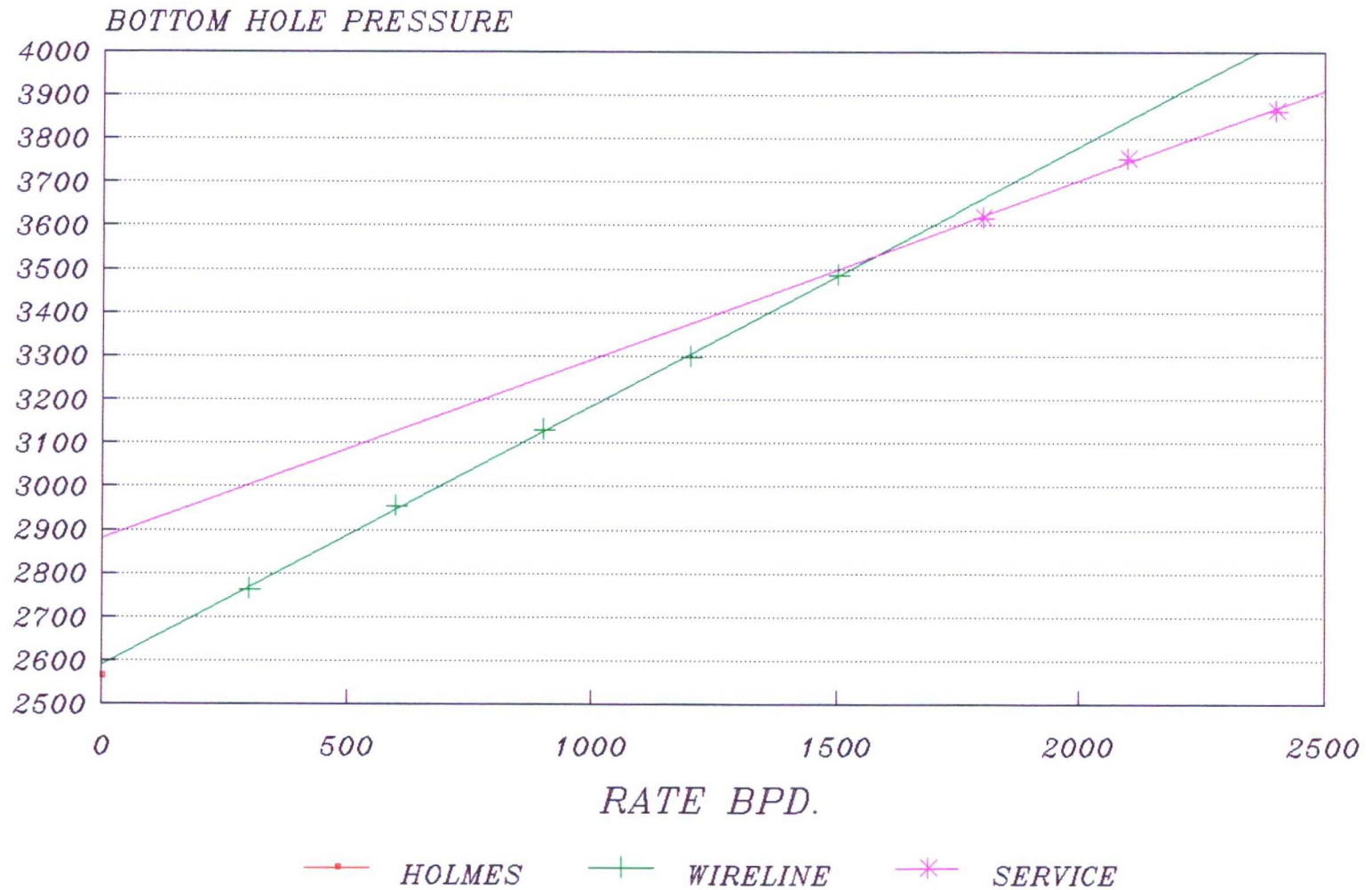
WISER OIL : CMU #26



NO FRACTURE INDICATED

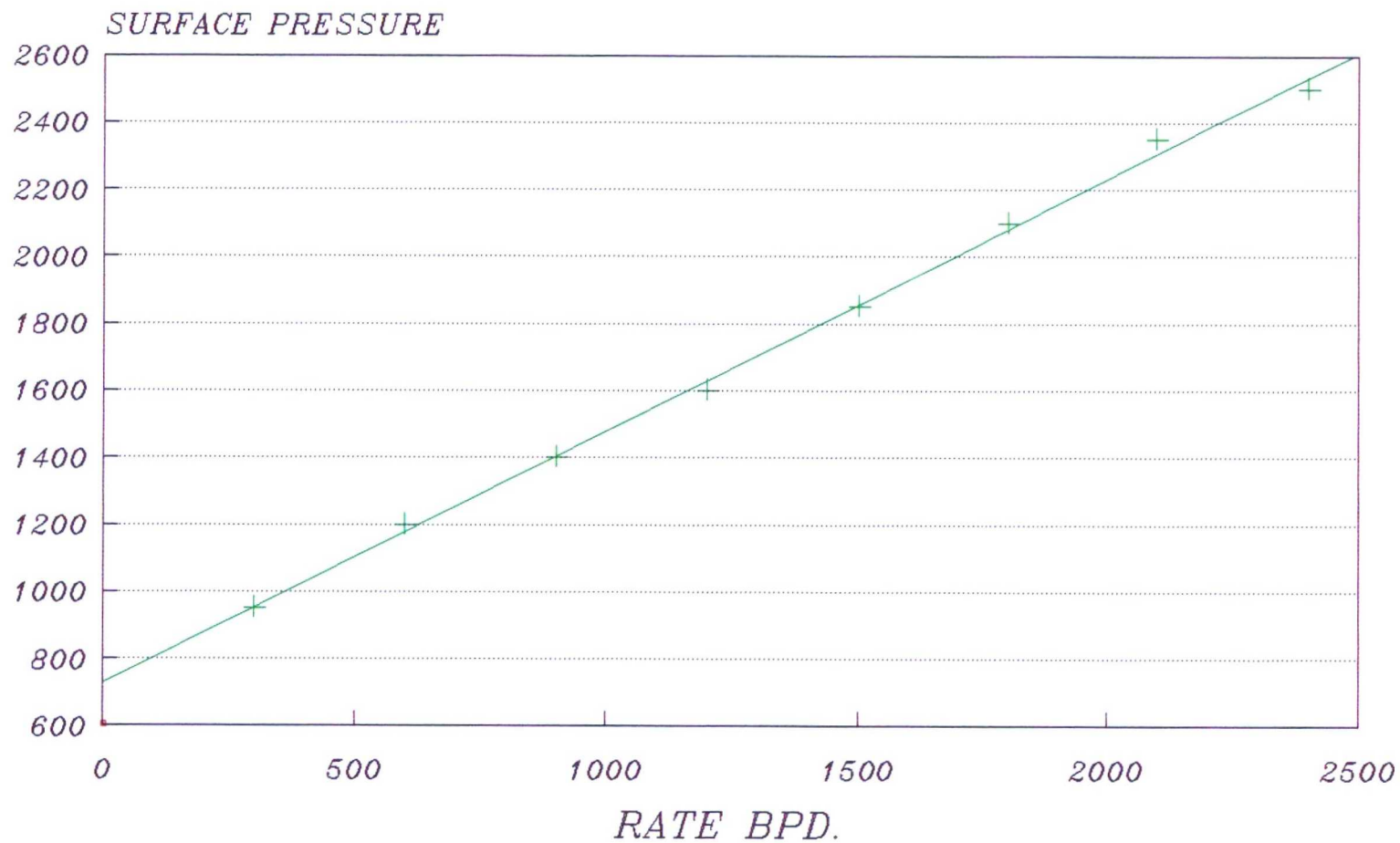
9-27-95

WISER OIL : CMU #37



FRACTURE AT APPROX. 3525 BHP 10-11-95

WISER OIL : CMU #37

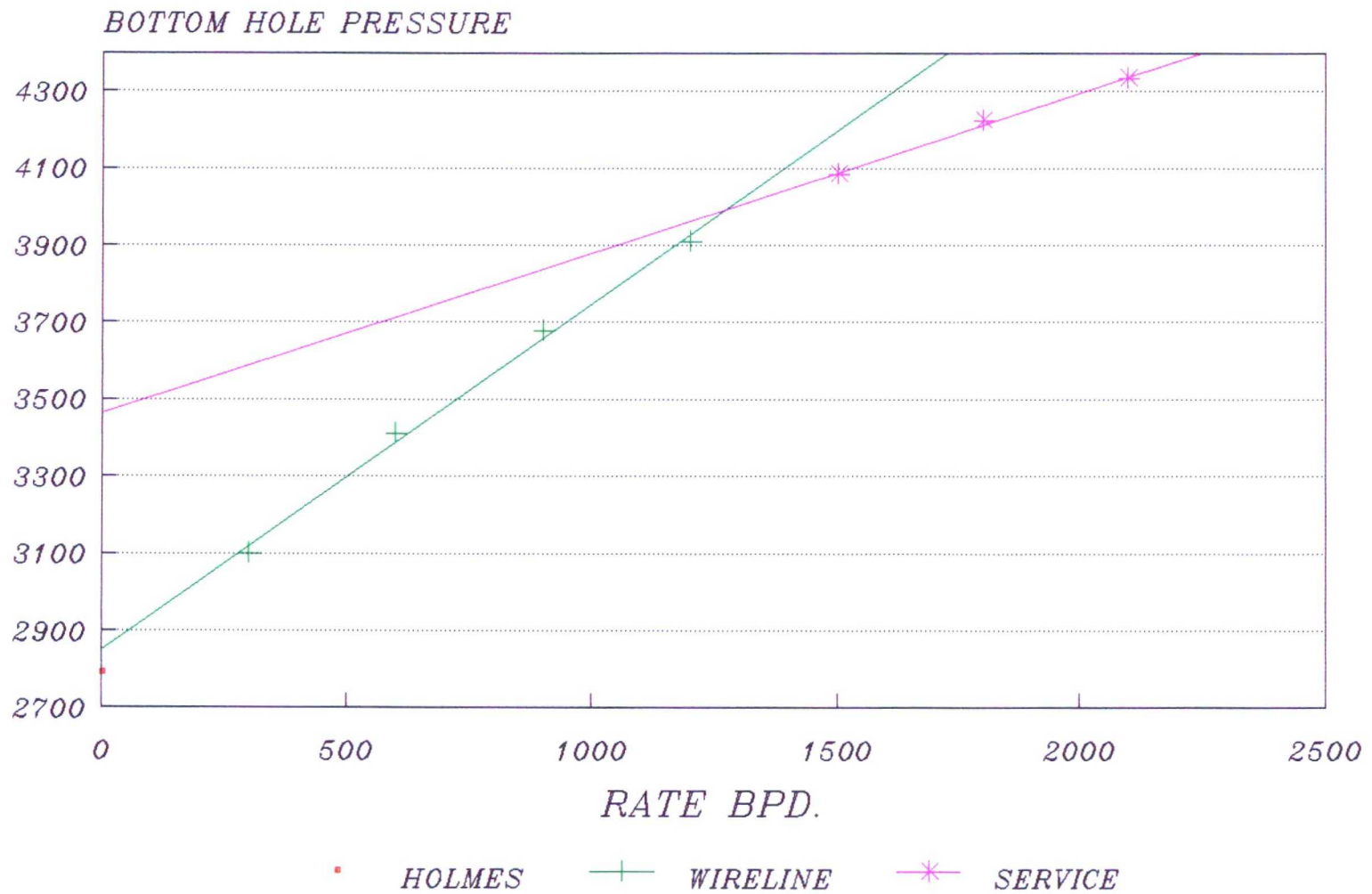


■ HOLMES + WIRELINE SERVICE

NO FRACTURE INDICATED

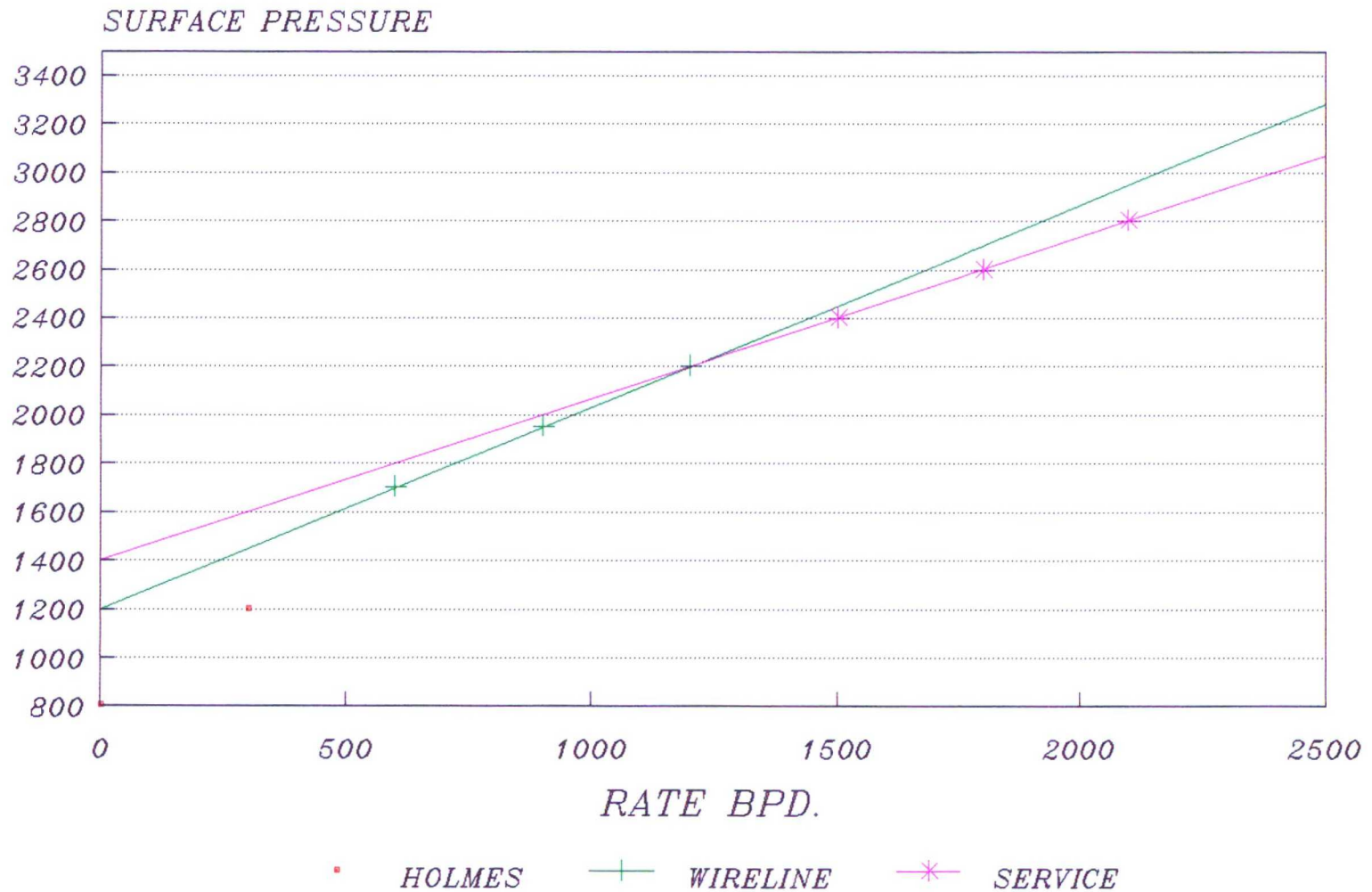
10-11-95

WISER OIL : CMU #40



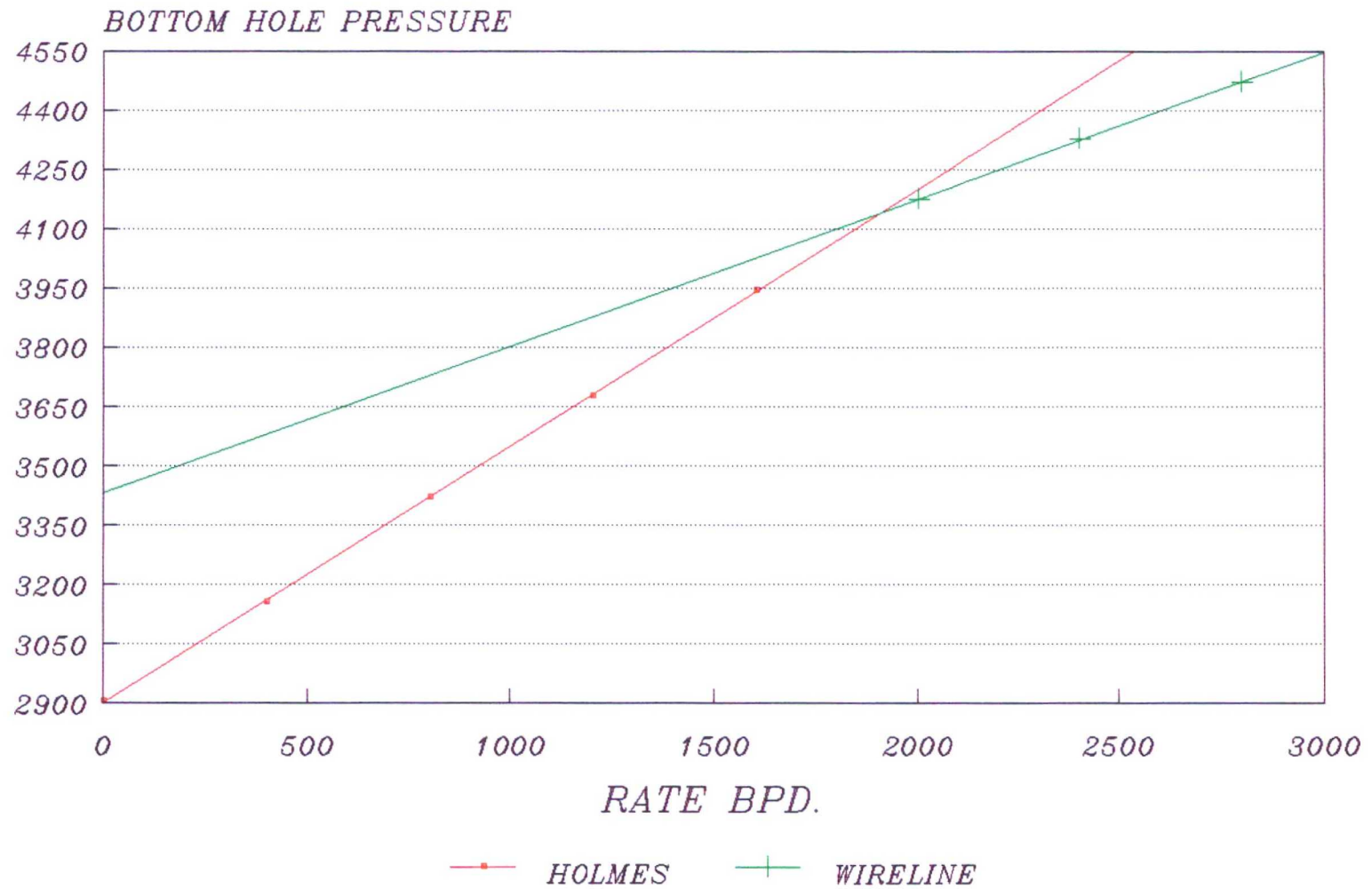
FRACTURE AT APPROX. 4000 BHP 10-10-95

WISER OIL : CMU #40



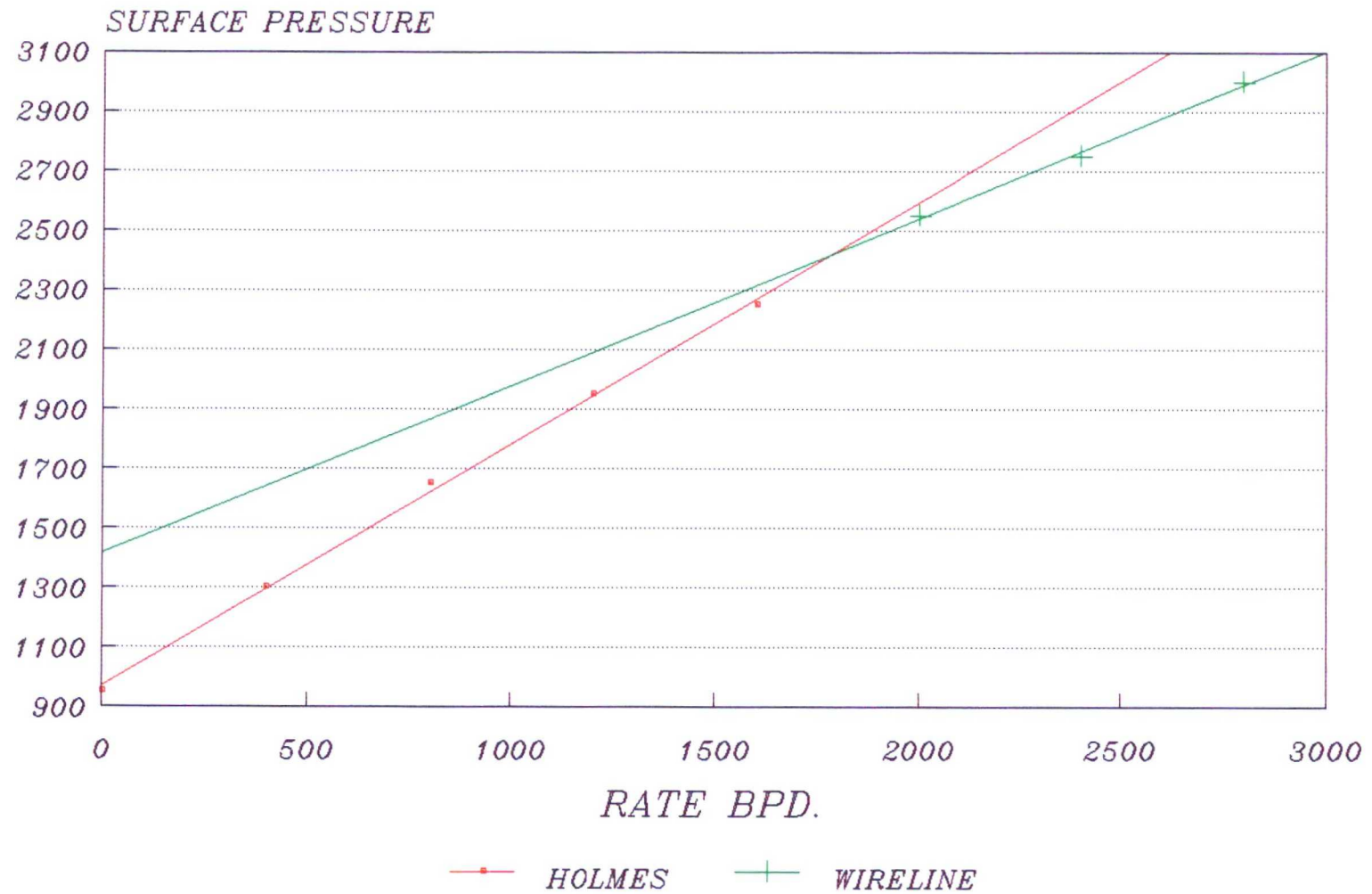
FRACTURE AT APPROX. 2210 PSI 10-10-95

WISER OIL : CMU #42



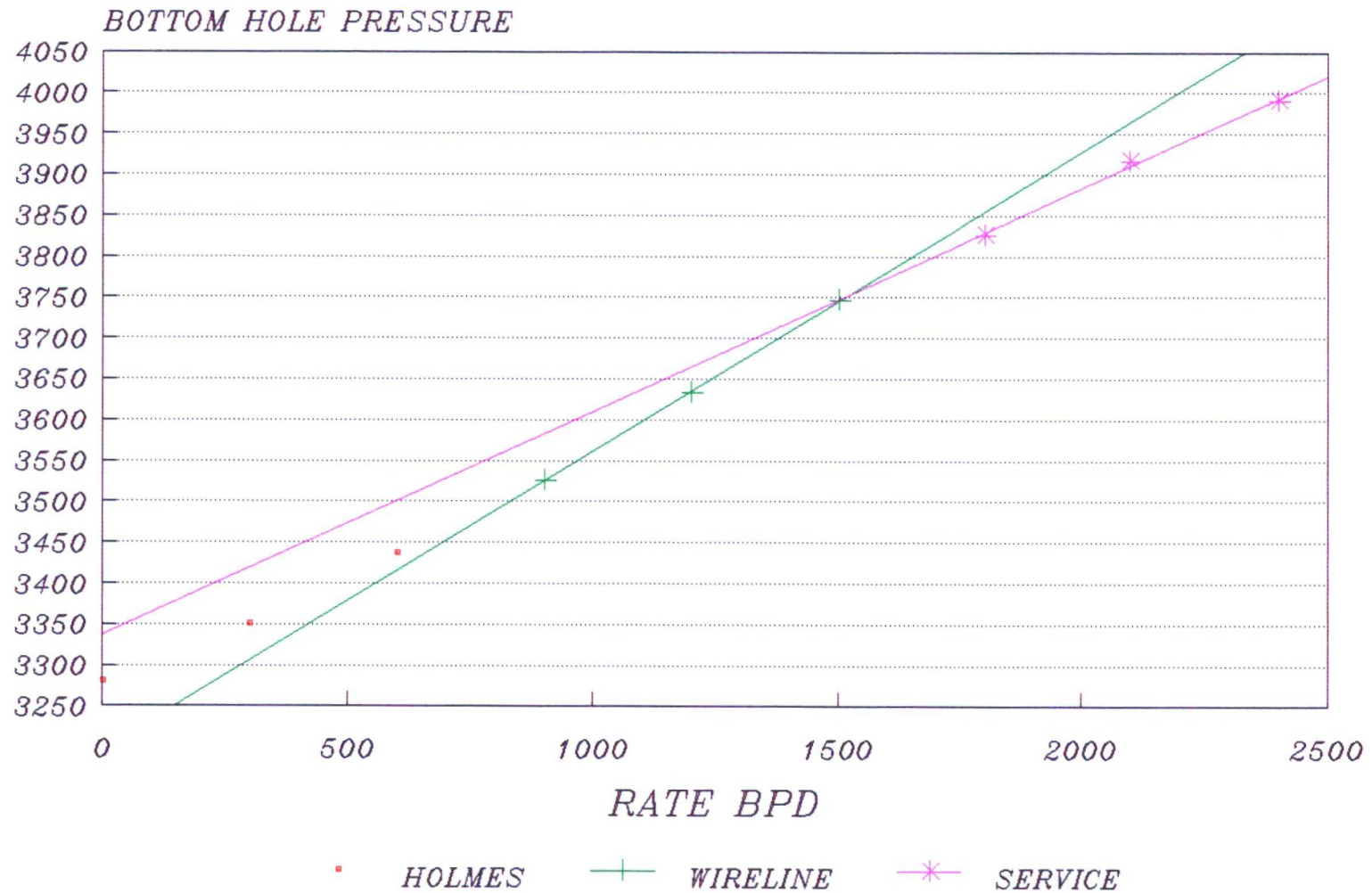
FRACTURE AT APPROX. 4130 BHP 10-2-95

WISER OIL : CMU #42



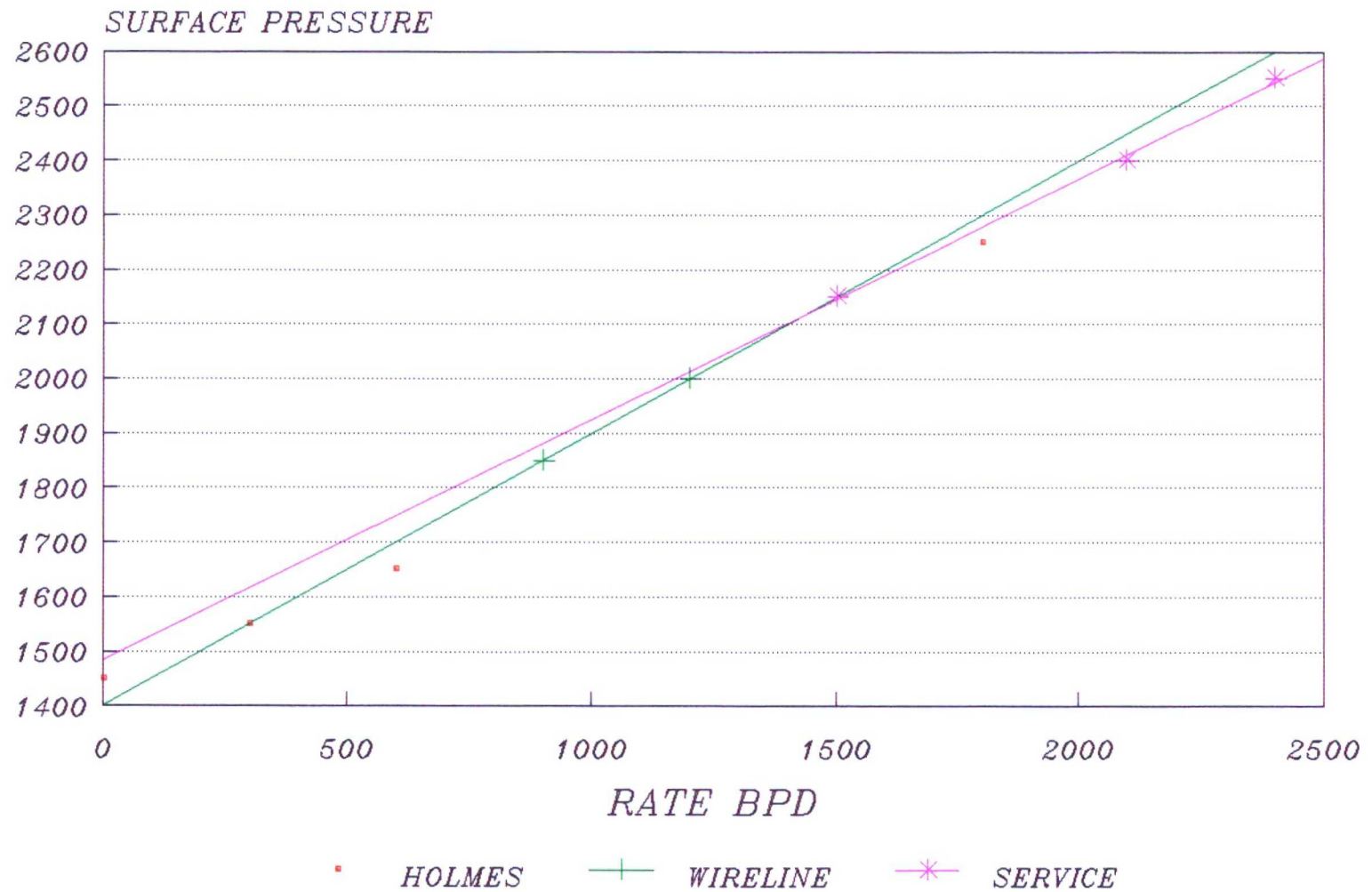
FRACTURE AT APPROX. 2400 PSI 10-2-95

WISER OIL : CMU #51



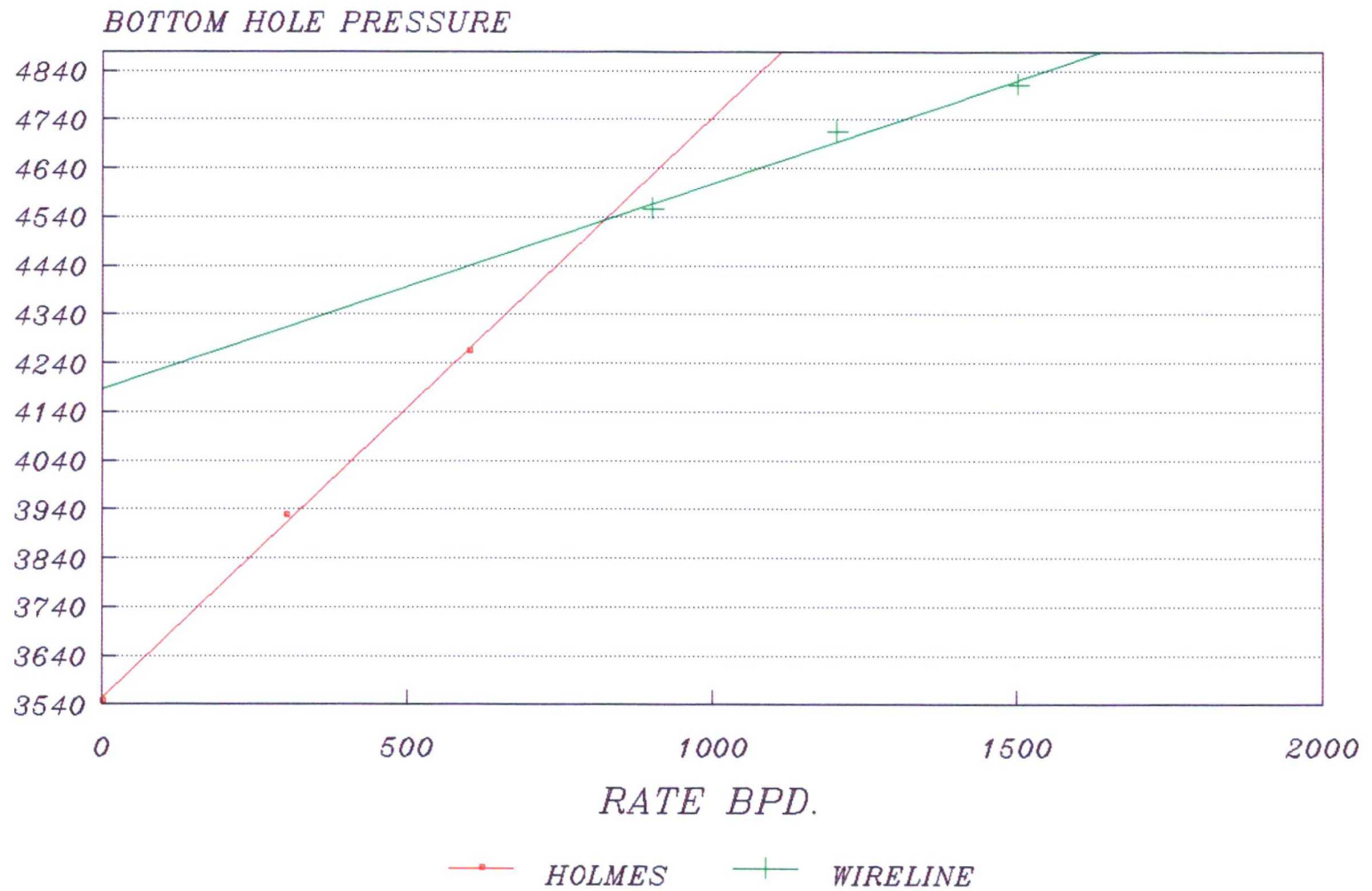
FRACTURE AT APPROX. 3750 BHP 10-3-95

WISER OIL : CMU #51



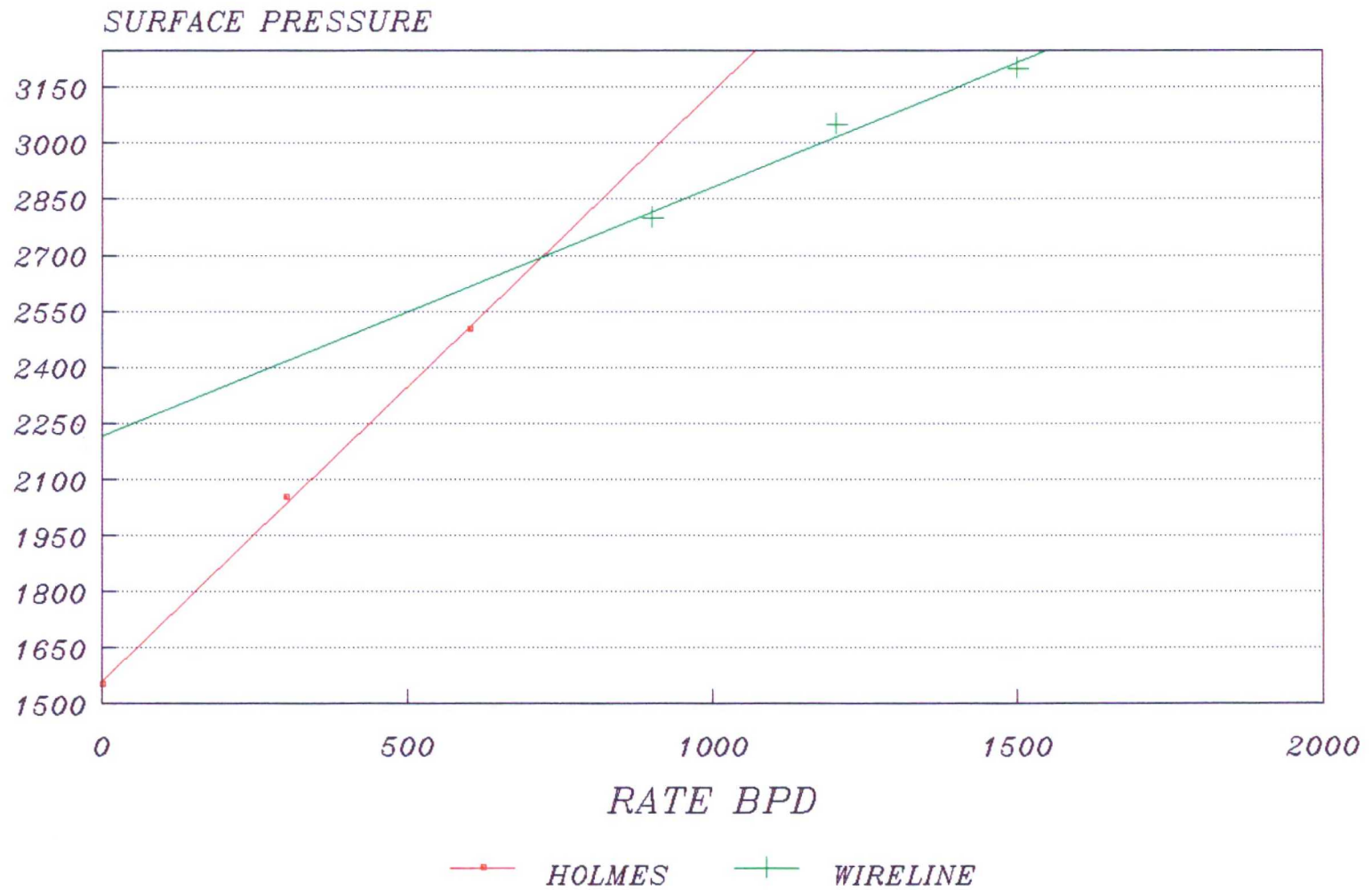
FRACTURE AT APPROX. 2125 PSI 10-3-95

WISER OIL : CMU #57



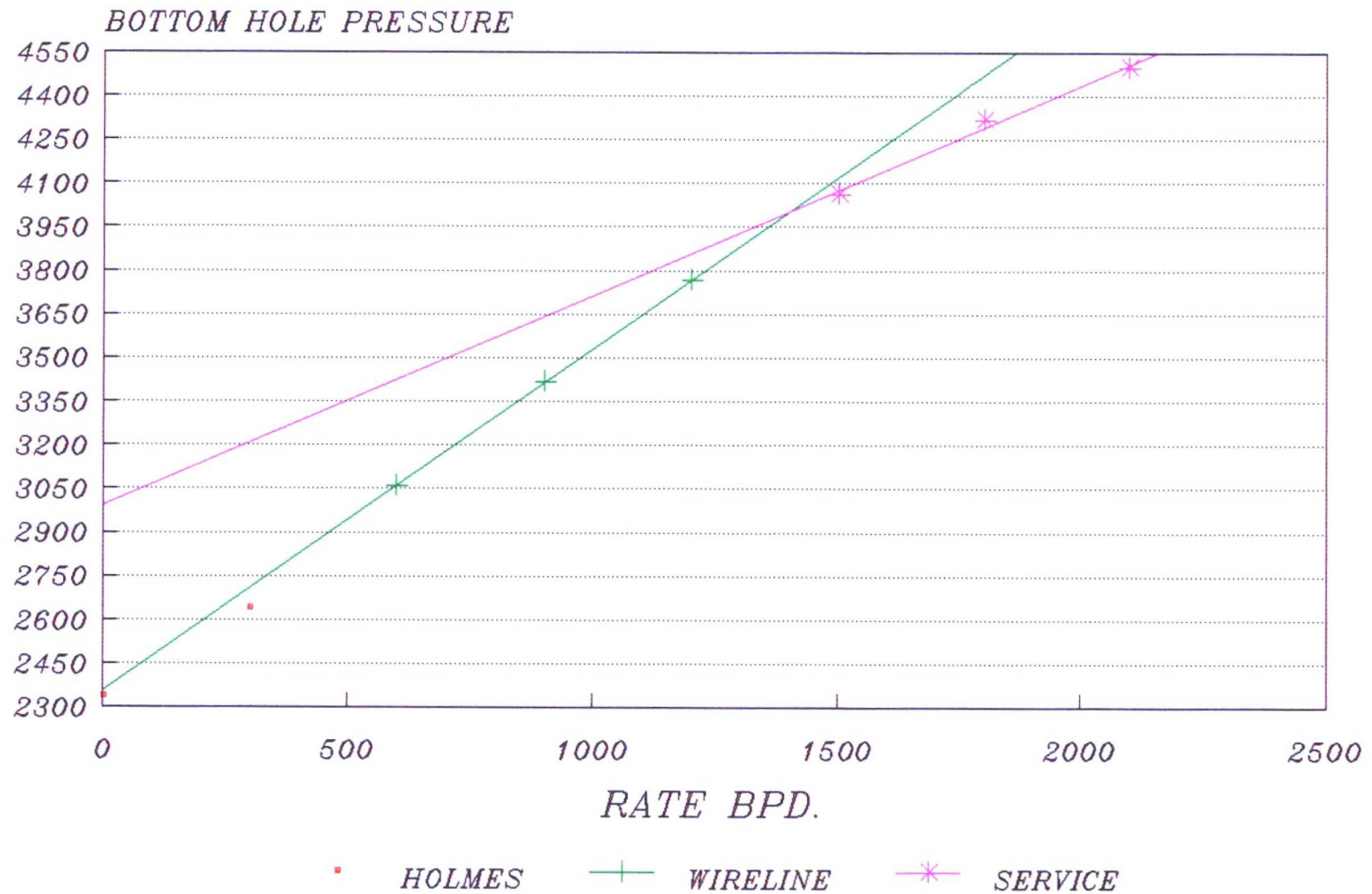
FRACTURE AT APPROX. 4540 BHP 10-4-95

WISER OIL : CMU #57



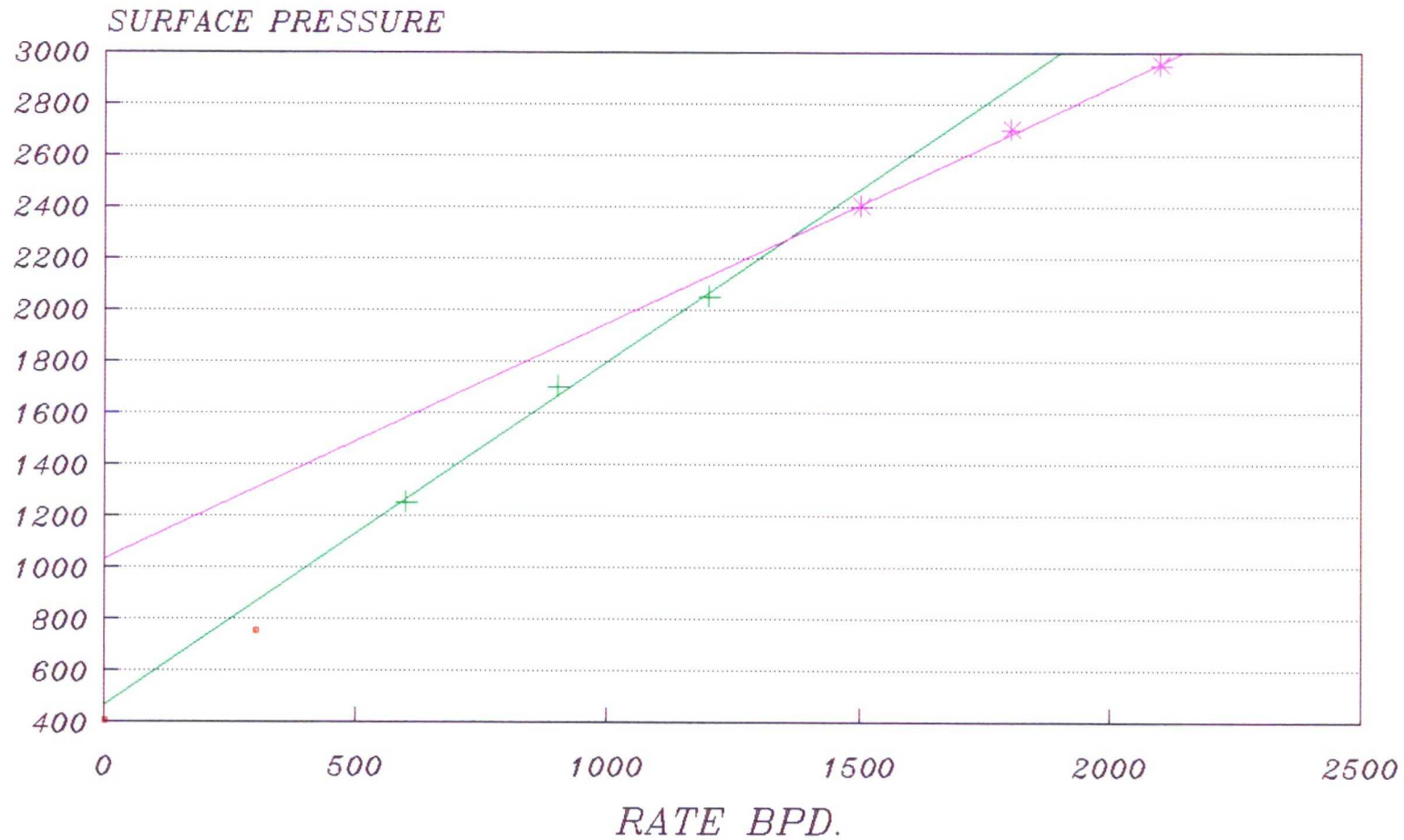
FRACTURE AT APPROX. 2700 PSI 10-4-95

WISER OIL : CMU #59



FRACTURE AT APPROX. 4000 BHP 10-5-95

WISER OIL : CMU #59



HOLMES WIRELINE SERVICE

FRACTURE AT APPROX. 2290 PSI 10-5-95

